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**Bee products collection centre— Basic
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Foreword

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

DRS 569 was prepared by Technical Committee RSB/TC 027, *Beekeeping and beekeeping products*

Committee membership

The following organizations were represented on the joint Technical Committee on Beekeeping and beekeeping products in the preparation of this standard.

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Bee products collection centre — Basic requirements

1 Scope

This working draft provides requirements for premises, utilities, equipment, personnel, operations and management of bee products collection centre.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

RS 113, *Geotechnical design — General requirements*

RS EAS 12, *Potable water — Specification*

RS 267-1, *Feeder roads — Part I: Guidelines for design*

RS 267-2, *Feeder roads — Part II: Guidelines for maintenance*

RS 115, *Building construction — Design of facilities for people with disability — Code of practice*

RS CAC/RCP1, *General principles of food hygiene*

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply

3.1

bee products Collection Centre (BCC)

premises where bee product is collected from beekeepers

3.2

laboratory

room within the complex of the BCC where raw honey/ honey products is subjected to quality and safety tests

4 Operational License

Bee products Collection Centre shall be licensed by the competent authority.

5 Location

5.1 The location of bee products collection centre shall comply to the land use and zoning requirements provided by the competent authority

5.2 bee products collection center shall be in the appropriate location distanced from any source of pollution, such as smoke and rubbish dump and waste disposal area.

5.3 Where possible, selection of location shall consider areas not prone to flooding. However, where it is unavoidable, foundation designs for the facility shall comply to the requirements of RS 113 and national building code requirements so as to prevent cracking, settlements, and structural failures.

5.4 There shall be sufficient space for accommodation of vehicle parking and other essential inputs.

5.5 The bee products Collection Centre shall be accessible by road.

5.6 The bee products Collection Centre shall have access to facilities such as clean water and sufficient power supply.

6 General facility design requirements

6.1 The design and construction shall conform to the requirements of the national building codes and relevant Rwanda Standards.

6.2 The building materials used shall comply with relevant Rwanda standards. Materials shall be durable and non-toxic

6.3 Building shall be structurally sound and hygienically designed and constructed to prevent cross-contamination from exterior, and to be safe and proper for operation.

6.4 Building design and layout shall be designed so that there is a separation of clean and unclean working operations.

6.5 The buildings and facilities shall be designed to prevent the entrance and harboring of pest and the entry of environmental contaminants such as smoke and dust.

6.6 The foundations shall be adequately designed to carry the all loads of the building and shall be termite proofed.

6.7 The floor shall be finished with non-absorbent, easy to clean, non-slip materials and without crevices.

6.8 Wall finishes shall be made of materials that do not cause contamination. Interior surface shall be smooth without dirt accumulation, clean and undamaged, with no opening passage to prevent the entry of disease carrier animals.

6.9 All in door corners and edges of BCC shall have curved finishing.

6.10 The roof of the bee products collection center shall be such that it does not transmit any undesirable substances to the product being handled.

6.11 Ceiling shall be designed, constructed and finished as to prevent the accumulation of dirt and minimize condensation, mould development and flaking and shall be easy to clean.

6.12 All doors shall be flush finished on the interior side, capable of easy cleaning, non-absorbent and shall be protected on both sides by non-corroding metal kick plates to prevent damage which may provide access for rodents, where appropriate, be self-closing and close fitting.

6.13 All windows shall be provided with non-corrosive screens fitted to the outside which shall be removable for cleaning and the sills shall be slopping.

6.14 The BCC shall be fenced with at least 2 m high fence to avoid unauthorized entrance.

6.15 Wash hand basins (Hand washing facilities) shall be either knee or pedal operated, with suitable hand cleaning preparation and with suitable hygienic means of drying hands.

7 BCC layout requirements

7.1 Reception area

7.1.1 Hygienic measures shall be in place before entering the building, room or area for raw honey/bee product receiving, i.e., disinfectant solution basin for boots or shoes to prevent contamination, non-hand operated hand wash basin and equipped with liquid soap and hand drying kits.

7.1.2 Clean and undamaged doors or plastic curtains shall be closed tightly to prevent dust and insect.

7.1.3 Floor shall be made of non-abrasive, non-corrosive, non-absorbent and easy to clean materials, undamaged, and shall drain easily. Wall and floor connection shall be of curved angle.

7.2 Receiving areas

7.2.1 The receiving areas shall be distanced from parking area to prevent contamination.

7.2.2 The area shall be well lighted to facilitate the reception.

7.1.4 A drainage system shall be well flown, undamaged, clean, and shall be:

a) equipped with wire-mesh before draining out of the building, in case of closed drains, and

- b) equipped with U-shaped gutters, in case of open drains.

7.3 Laboratory

7.3.1 The laboratory if present, shall have sufficient area for the purpose and comply to relevant laboratory design standards.

7.3.2 The floor shall be of non-absorbent, washable and non-slip materials, without crevices, easy to clean and disinfect.

7.3.3 The wall shall be non-absorbent and easy to clean

7.4 Cleaning area for equipment

7.4.1 bee products collection center shall be provided with indoor cleaning room as follows:

- a) the floor shall be made of non-absorbent, washable and non-slip materials without crevices, easy to clean and disinfect.
- b) the wall shall be finished with non-absorbent, washable and easy to clean materials
- c) hot and cold-water supply shall be available in the cleaning room.

7.4.2 Raw honey/bee products container washing areas shall be provided for members as follows:

- a) the washing area should be distanced from parking area to prevent contamination;
- b) washing areas for members should be designed and finished as to facilitate the operations;
- c) washing areas should be finished with non-absorbent materials and easy to clean;
- d) floor should be slope and able to rapidly drain out the water;
- e) sufficient and appropriate cleaning tools for empty raw honey/bee products containers shall be provided

7.5 Office space

7.5.1 Office in the bee products collection center shall not cause any contamination to the raw honey receiving building.

7.5.2 The office space shall be:

- a) easily accessible for staff and other visitors;

- b) clearly signposted;
- c) well aerated;
- d) safe and unobstructed; and
- e) clean, naturally well-lit and suitably furnished.

7.6 Toilets and urinals

7.6.1 Bee products collection center shall be provided with separate and designated toilets and urinals for members and for staff as follows:

- a) toilets and urinals for male and female shall be separately constructed in an area that does not bring ill effect on the collected bee products;
- b) toilets inside the bee products collection center shall be hygienic, located in appropriate position, adequate and able to prevent cross-contamination effectively;
- c) the floor of the toilets and urinals shall be non-absorbent, washable and non-slip, without crevices and shall be easy to clean and disinfect. The floors shall slope sufficiently for liquids to drain to trapped outlets including grates;
- d) the wall shall be constructed from non-absorbent, washable materials and they shall be smooth and without crevices and shall be easy to clean and disinfect;
- e) the toilets and urinals shall be furnished with appropriate hand washing facilities equipped with hygienic materials such as liquid soap or solid soap sanitizers, disposable towels or air-drying equipment or tissue paper hanger.
- f) Design shall take into consideration of toilet facilities for persons with disabilities as per RS 115 requirements

7.7 Shower and changing rooms

7.7.1 There shall be separate changing room and shower for male and female workers

7.7.2 Shower and changing room shall be hygienic, located in appropriate positions, adequate and able to prevent cross-contamination effectively. They shall have shower faucets and other plumbing fixtures

7.7.3 Showers and changing room shall be finished with non-absorbent, washable and easy to clean materials

7.7.4 Changing rooms shall be furnished with labelled lockers.

7.7.5 All cleaning materials shall be provided.

7.8 Ventilation and Lighting

Indoor ventilation shall be as follows:

- a) ventilation system shall be designed and installed as to allow better air flow and not being dampening shall be available. Passive ventilation systems designs shall be used where necessary;
- b) Such system or device shall not be installed in an area that may pose a risk of contamination to bee products
- c) Lighting shall be adequately provided as per relevant standards specific to the use of each room. Natural lighting shall be utilized where possible.

8 Utilities

8.1 Road accessibility

8.1.1 Access roads to bee products collection center shall be at least designed and maintained in accordance with RS 267-1 and RS 267-2, respectively.

8.1.2 The building verge, main internal access road, loading bays and all areas serving vehicular traffic shall be either paved or tarred.

8.2 Water and electricity

8.2.1 Running water under pressure shall be easily accessible to all rooms and areas in which honey/bee product is handled and equipment are washed.

8.2.2 The water shall comply with RS EAS 12. The water shall be microbiologically tested at least twice a year and especially following cleaning and disinfection of water storage tanks.

8.2.3 BCC shall be equipped with Water storage tanks of adequate capacity to ensure the availability of water all the times. Where possible water storage shall be equipped with a pumping system.

8.2.4 The tanks and contents shall be inspected at frequent intervals and emptied cleaned and disinfected as necessary and at least once per year.

8.2.5 In cases where the total water hardness exceeds 500 mg/l (as CaCo₃). Water softeners shall be used for all water where heat treatment cleaning or rinsing is involved.

8.2.6 The electrical installation shall comply with Rwanda Electrical code and standards

8.2.8 Installation of electric wires and sockets shall be neat, well arranged and shall be in the position that cause no contamination but safe for operators.

8.2.9 Light bulb shall be equipped with clean bulb cover that has no dust, cobweb or dirty stain, particularly in the risky areas, such as an area over the raw honey/ bee product receiving area.

8.2.10 Light bulb shall be undamaged, able to provide sufficient light and functional at every operating area, particularly those areas that are the critical control point of food safety such as receiving area, cleaning area for equipment and tools and chemical preparation area for cleaning,

8.2.11 BCC shall be provided with power back-up systems. It may be electric generators or solar systems.

9 Equipment and tools

9.1 General requirements

9.1.1 Adequate and effective machines and equipment shall be provided

9.1.2 Machines and equipment installation layout shall be in line with the flow of activities .

9.1.3 Machines and equipment surface in contact with bee products shall be made of rust-free metal.

9.1.4 Machines and equipment shall be installed in the positions that facilitate the operation, maintenance and cleaning.

9.1.5 Safety systems for personnel protection shall be in place.

10 Transportation

Transportation of bee products shall be prepared appropriately and hygienically so as to prevent cross contamination.

11 Hygiene

11.1 General requirements

Operation in the bee products Collection Centre shall be done accordance with the provisions in RS CAC/RCP 1.

11.2 Personal hygiene management

11.2.1 Hygiene of receiving operators shall be monitored in order to reduce the possibility of contamination during the operations and recorded regularly for assessment as follows:

- a) nails shall be clipped and kept clean;
- b) uniform or clothes shall be clean;
- c) hair shall be entirely covered with cap as well as mouth and nose shall be covered with a mask during operations;

- d) apron shall be waterproof and clean;
- e) wear clean boots or shoes for use in a specific area;
- f) do not wear any accessories during the operations;
- g) establish hygienic rules for operators who have any symptom of gastrointestinal diseases, respiratory diseases or wound that may cause risk of honey/bee product contamination;
- h) report annual health examination including tuberculosis, dermatitis, parasite and hepatitis.

11.2.3 Train and check the operators whose works are involving raw honey/bee product in order to acquire basic knowledge according to standard of good practices as follows:

11.2.3.1 Train operators before beginning work in order to assure their ability to practice the assignment.

11.2.3.2 Train the operators on the specific areas of their responsibility, i.e, repairing and maintenance of machines and equipment, calibration of the scale and temperature measurement device as well as laboratory analysis.

11.2.3.4 Train the driver on good hygienic practices for honey/bee products transportation.

11.2.3.5 Provide training to review and refresh their knowledge for at least once a year.

11.2.3.6 Trainers and inspectors shall be officers from the competent authority.

12 Safety measures and environmental management

Safety measures concerning operating areas, equipment, management of chemicals and their containers including environmental management in waste water treatment system shall be established according to relevant regulations

12.1 Safety measures shall be as follows:

- a) the security shall be guaranteed by either security guards or CCTVs;
- b) alarm device or system for operating areas shall be in place in order to remind operators to be more careful and to warn in the risky area in which the danger may occur;
- c) First-Aid kit and training course thereof shall be provided;
- d) fire extinguishers shall be installed;
- e) personal Protective Equipment (PPE) shall be provided to protect personnel from injury during chemical preparation. The PPE shall be indicated by sign, easily reached and properly used.

12.2 Hygienic and effective control systems and preventive measures against disease carrier animals shall be in place.

12.3 Management system for chemicals and their containers shall be in place.

12.3.1 Chemicals shall be labeled and stored in a proper shelf or locker with indication.

12.3.2 Chemicals that are no longer used and empty containers shall be eliminated by using proper methods not causing contamination.

12.4 Drains inside the building of bee products collection center shall be as follows:

- a) closed drains shall be equipped with sieves in order to prevent clogging or gradual accumulation of debris;
- b) open drains shall be U-shaped in order to be cleaned easily and unable to accumulate debris;
- c) in case of waste water drainage without using drain inside the building, the floor shall be slope and able to rapidly drain out in order to ensure that there is no water logging causing contamination;
- d) drains shall be clean, undamaged and good conditions with sufficient slope for well drainage;
- e) drains shall have sieve for filtering prior to releasing outside the building, and for preventing the entry of insects and disease carrier animals;
- f) waste water treatment system shall not generate disturbing odour, pollution and contamination to the center.
- g) effectiveness of waste water treatment shall be monitored, recorded and kept the document for traceability purpose for at least 2 years.

12.5 The entry of pets into the center is prohibited.

13 Waste management

13.1 There shall be waste disposal system subject to environmental protection principles.

13.2 The waste disposal area shall be located in a way to avoid harborage of rodents.

14 Record keeping

Records shall be kept for the quantity collected, variety, suppliers' identification and distribution details.

DRS for public review

Bibliography

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